

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A method for forming a copper interconnect layer, comprising:

forming a first copper region over a semiconductor;

forming a low K dielectric layer over said copper region;

forming a plurality of vias in a first region of said low K dielectric layer;

forming a trench with a first edge in said low K dielectric layer over said plurality of vias wherein said trench extends a minimum length of 0.2 μm ~~X_{TO}~~ beyond the edge α of a via closest to the first edge of said trench; and

filling said trench and said plurality of vias with copper.

Claim 2 (original): The method of claim 1 wherein said trench is formed with a first depth d_1 in said first region and a second depth d_2 at said trench edge wherein d_1 is greater than d_2 .

Claim 3 (canceled)

Claim 4 (currently amended): The method of claim 1 wherein said plurality of vias are separated by a distance less than 1.0 μm .

Claim 5 (withdrawn): An integrated circuit copper layer, comprising:

a low K dielectric layer over a semiconductor;

a plurality of vias in a first region of said low K dielectric layer;

a trench with a first edge in said low K dielectric layer over said plurality of vias wherein said trench extends a minimum length X_{TO} beyond the edge α of a via closest to the first edge of said trench; and

a copper layer with a first edge in said trench and said plurality of vias wherein said first edge of said copper layer coincides with said first edge of said trench and extends a minimum length X_{TO} beyond the edge α of said via closest to the first edge of said trench.

Claim 6 (withdrawn): The integrated circuit layer of claim 5 wherein said copper layer comprises a first thickness t_1 in said first region and a second thickness t_2 at said first edge wherein t_1 is greater than t_2 .

Claim 7 (withdrawn): The integrated circuit copper layer of claim 5 wherein said minimum length X_{TO} is 0.2 μ m.

Claim 8 (withdrawn): The integrated circuit copper layer of claim 7 wherein said plurality of vias are separated by a distance less than 1.0 μ m.

Claim 9 (original): A method for forming integrated circuit copper interconnects, comprising:

forming a first copper region over a semiconductor;

forming a low K dielectric layer over said copper region;

forming a plurality of vias in a first region of said low K dielectric layer wherein said plurality of vias are separated by a distance less than 1.0um;

forming a trench with a first edge in said low K dielectric layer with a first depth d_1 in said first region and a second depth d_2 at said trench edge over said plurality of vias wherein d_1 is greater than d_2 , and said trench extends a minimum length of 0.2um beyond the edge α of a via closest to the first edge of said trench; and

filling said trench and said plurality of vias with copper wherein said copper used to fill said vias contacts said first copper region.